

REMARKS

Claims 42, 44-48, 50-55, and 57-65 are pending in this application. By this Amendment, claims 64-65 are added. Support for claim 64 can be found in the specification at, for example, page 12, lines 15-26. Support for claim 65 can be found in the specification at, for example, page 33, lines 31-33. No new matter is added.

I. Objection to the Specification and Rejection Under §112

The specification is objected to for an improper incorporation by reference, and claims 42, 44-48, 50-55 and 57-63 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse the objection and rejection.

The basis of the objection and rejection is that claims 42 and 55 specify that the identified solution is an "alkali-aliphatic amine solution" and the specification was amended to incorporate subject matter from Japanese Patent Laid-Open No. 195214/1998, which describes suitable etching solutions. The Office Action asserts that the specification failed to convey an intent to incorporate the suitable solutions by reference. Applicants disagree.

Applicants submit the amendments to the Specification and claims properly incorporate and insert the relevant subject matter of Japanese Patent Laid-Open No. 195214/1998 according to the requirements set forth by 37 C.F.R. §1.57. In particular, the identification of Japanese Patent Laid-Open No. 195214/1998 at least at page 12, line 30-32, describing suitable etching solutions with reference to the Japanese patent document, evidences a clear intent to incorporate at least the etching solution disclosure by reference into this application.

Under 37 C.F.R. §1.57(g)(1), correction to comply with §1.57(b)(1) is permitted "... if the application as filed clearly conveys an intent to incorporate the material by reference. A mere reference to material does not convey an intent to incorporate the material by reference."

To convey an intent to incorporate by reference the reference in the present specification must make it "apparent that the cited document is part of the referencing document." In re Lund, 376 F.2d 982, 989 (C.C.P.A. 1967). General references to documents, such as a continuation-in-part, division, and continuation of another application, have been described as "mere references" that do not meet the standard set forth in 37 C.F.R. §1.57(g)(1). See In re Seversky, 474 F.2d 671, 674 (C.C.P.A. 1973).

However, the specification, at page 12, line 29, discloses, "The basic solution [used in the invention] is preferably an alkali-amine solution, for example, *an alkali-amine solution described in Japanese Patent Laid-Open No. 195214/1998*." (emphasis added). This reference is not a general reference to a previous publication for general background information, but rather as a reference to a specific alkali-amine solution in a specified document that was plainly meant to include the alkali-amine solution from the cited reference as a component for use as the basic solution in the present invention. Therefore, the reference in the specification makes it apparent that the alkali-amine solution from the cited document is meant to be included as part of the instant specification and is not a "mere reference". Further, the language in the present specification is similar to language previously determined to convey an intent to incorporate by reference. In re Lund, 376 F.2d 982, 990 n.10 (quoting *Rolls Royce Ltd., Derby England v. U.S.*, 339 F.2d 654 (C.C.P.A. 1964) "The [2,497,667] patent stated, 'An alloy as proposed ... in our patent application ... Ser. No. 711,204, containing [certain elements]' The majority of the court concluded 'the full disclosure of the 711,204 application is as much a part of the disclosure of the 2,497,667 patent as if fully set out therein").

For the reasons stated above, correction under 37 C.F.R. §1.57(g)(1) to comply with §1.57 (b)(1), as reflected in the previous amendment to the specification, should be permitted.

Therefore, insertion of the relevant portion of Japanese Patent Laid-Open No. 195214/1998, also reflected in the amendment to the specification, is appropriate under 37 C.F.R. §1.57(f).

Additionally, with the February 6, 2006 Amendment, applicants also provided, for the Examiner's information, copies of Japanese Patent Laid-Open No. 195214/1998, an English language abstract thereof, and U.S. Patent No. 6,218,022, which is a counterpart application of Japanese Patent Laid-Open No. 195214/1998.

Because the subject matter added to claims 42 and 55 is supported by the specification as filed, and because the relied upon material that has properly been incorporated by reference has been incorporated in relevant part, the rejections are overcome and should be withdrawn.

Reconsideration and withdrawal of the objection and rejection are respectfully requested.

II. Rejection Under 35 U.S.C. §103

The Office Action rejects claims 42, 44-48, 50-55, and 57-63 under 35 U.S.C. §103(a) over Nippon Steel Chemical in view of European Patent No. 0 832 918 to Suzuki et al. ("Suzuki"). Applicants respectfully traverse the rejection.

Nippon Steel Chemical is referenced to the English language equivalent, U.S. Patent No. 6,203,918 to Shimose et al. ("Shimose").

The relevant portion of claims 42 and 55 recite, "... the first resin layer has a first etching rate when etched with an alkali-aliphatic amine solution and the second resin layer has a second etching rate when etched with the alkali-aliphatic amine solution; and a ratio of the first etching rate to the second etching rate is from 4:1 to 1:1."

The Office Action asserts the etching ratio is recognized as a result-effective variable, and therefore discovery of an optimum value is within the skill of the art. However, in order for a variable to be a result-effective variable, it must be "a variable which achieves a recognized result." MPEP §2144.05(B). Further, it must be recognizable that the cited

references teach the functionality that is essential to the obviousness of optimizing the variable that achieves the recognized result. See In re Antonie, 559 F.2d 618, 620 (C.C.P.A. 1977).

However, neither Shimose nor Suzuki, individually or combined, teach or suggest this result or functionality. Shimose merely discloses, in examples, that the resins used to form a multi-layered laminate have etching rates, which happen to be similar from layer to layer. Shimose does not teach or suggest that a proper etching rate ratio between the resin layers is functionally required to achieve proper etching shape results. Additionally, such functionality cannot be determined from the examples disclosed in Shimose because the etching rates of the resin layers were not substantially varied, and therefore the etching rate ratio went untested. Further, Suzuki does not address the discrepancies of Shimose because Suzuki does not disclose etching rates or multi-layered laminates or films.

For the reasons stated above, the cited references do not render the etching rate ratio feature of claims 42 and 55 a result-effective variable, and thus, it would not have been obvious to one of ordinary skill in the art to optimize the etching rate ratio.

Claims 42 and 55 would not have been rendered obvious by Shimose and Suzuki. Claims 44-48, 50-54, and 57-63 depend variously from claims 42 and 55 and, thus, also would not have been rendered obvious by Shimose and Suzuki. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

III. New Claim 65


Claim 65 specifies that the alkali-aliphatic amine solution comprises monoethanol amine. This amendment is supported by the specification as filed, such as at page 33, lines 31-33, wherein the etching solution Toray TPE-3000 is described. TEP-3000 is an etching solution that comprises potassium hydroxide, monoethanol amine, and water, as evidenced by U.S. Patent No. 6,808,818.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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